UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration
Finance Division
Washington 25, D.C.

ACCOUNTING TREATMENT OF ACCRUALS AND DEFERRED ITEMS

Text No. 11

1. THE GENERAL LEDGER AFTER CLOSING

An examination of the general ledger after closing and adjusting entries have been posted usually reveals certain real account balances requiring special consideration. In order to obtain a clearer view of the situation, it may be worthwhile to observe the composition of the ledger of Jim Mann at the beginning of the new accounting period as portrayed by the following condensed statement. The items following are the same amounts as shown on the balance sheet at the close of business June 30, presented in Text No. 10:

Jim Mann
Trial Balance (condensed)
July 1, 19--

Accrued Interest Receivable	$ 10	
Merchandise Inventory	2,400	
Prepaid Insurance	110	
Accrued Taxes Payable		$ 80
Accrued Interest Payable		30
Unearned Rent Income		100
Other Debit and Credit Balances	22,500	24,810
	$25,020	$25,020

Attention is directed to accrued assets, opening inventory of the new period (closing inventory of old period), and deferred charges, which have debit balances; and to accrued liabilities and deferred credits, which have credit balances. Assume that the bookkeeper is about to begin recording transactions of the new accounting period. Is it necessary further to adjust the ledger before recording these transactions?

The method of procedure at the beginning of a new accounting period requires consideration because there are two clearly defined methods of handling accruals and deferred items. One method requires that reversals be made in order to reopen the books for the current period, while the other does not. By comparison of the two methods, it will be illustrated how the underlying principle of each method will reflect the same facts in more than one way.

Inasmuch as there may be some confusion in differentiating between accrued and deferred items, it is deemed advisable to emphasize several distinctions between the two before discussing the alternative methods of closing out these account balances in the new accounting period. (Accruals were discussed in Text No. 6, deferred items in Text No. 8.)

ACCRUED ITEMS	DEFERRED ITEMS
Recorded on the books by the adjusting entries.	Recorded at time of prepayment as either nominal or real items.
Adjusting entry is a charge to expense for services received and credit to an accrued liability account or Adjusting entry is a credit to income for services rendered and a charge to an accrued asset account.	Adjusting entry reduces a mixed account into its real and nominal elements. The deferred charge involves services paid for but not received, or supplies not used; or, the deferred credit involves payment for services collected in advance but not rendered.
Reversal at the beginning of the new period, or "split" method at date of payment, is optional.	Reversal of adjusting entry is needed when a nominal account is used originally in recording prepayment.
Accrued assets are usually collectible in cash; accrued liabilities are payable in cash within the near future.	Deferred charges become expense and deferred credits are converted into income.

The date of payment or date of entry is the chief factor in determining the existence of an accrued or deferred item. For example, if we rent a building January 1 and pay rent in advance for the year, then close our books June 30, we have a deferred charge for the rental paid in advance from July 1 to December 31. Conversely, the lessor has a deferred credit for a like amount of rental collected in advance. Change the transaction to read that we agree to pay the rent at December 31, the end of the year; then when we close our books June 30 there is an accrued liability for rent from January 1 to June 30. The lessor would have an accrued asset for rent earned to June 30 but not collectible until December 31. In either case, the charge to rent expense (or credit to rent income) is made in the period to which it applies.

2. ALTERNATIVE METHODS OF TREATING ACCRUED ASSETS

Accrued assets generally give rise to accrued income. Such income, which increases with the passage of time, results from the rendering of services. Interest, commissions, royalties, rentals, etc. which are earned in one fiscal period but are not due and collectible until a subsequent period serve as examples of accrued income. To illustrate how all items of this nature are handled, alternative methods will be applied to the accounting treatment of accrued interest on notes receivable.

Facts: May 31 - A customer gives a 6% interest-bearing note for $2,000 due in 60 days to close his open account.

June 30- No other interest-bearing notes are on hand at the close of the period.

July 30- The note was collected with $20 interest.

ACCOUNTING TREATMENT OF ACCRUALS AND DEFERRED ITEMS

Text No. 11

	SPLIT METHOD	DR.	CR.	REVERSAL METHOD	DR.	CR.
June 30	Accrued Int. Receivable	$10		Accrued Int. Receivable	$10	
Adjusting:	Interest Income		$10	Interest Income		$10
entry	Accrual for month.			Accrual for month.		

Comment: Adjusting entry is the same under either method.

	SPLIT METHOD	REVERSAL METHOD	DR.	CR.
July 1 To reopen: books	No entry	Interest Income	$10	
		Accrued Int. Receivable		$10
		To reverse adjustment - 6/30		
Comment:	The current asset account, Accrued Interest Receivable, will be cleared when the note and interest are collected. This may prove inconvenient if there are numerous notes with interest collections.	If the reversal method is adopted the bookkeeper may ignore accruals except at the close of a fiscal period. The reversal entry clears the accrued asset account and provides for the proper allocation of income to the period earned		

	SPLIT METHOD	DR.	CR.	REVERSAL METHOD	DR.	CR.
July 30 Note and interest collected	Cash	$2,020		Cash	$2,020	
	Interest Income		$10	Interest Income		$ 20
	Accrued Int. Rec.		10	Notes Receivable		2,000
	Notes Receivable		2,000	Collection of note.		
	Collection of note.					
Comment:	When the foregoing entries are posted the income account and accrued asset account appear as shown below. Compare with the accounts under reversal method and note that final results are the same under either method.			When the income account is credited for interest collected this still is a cancellation of the accrued asset that has been transferred to the debit side of the income account and a credit to income for the amount earned in the new accounting period.		

Interest Income				Interest Income			
6/30 P&L	$10	6/30	$10	6/30 P&L	$10	6/30	$10
		7/31	$10	7/1	$10	7/31	$20

Accrued Interest Receivable				Accrued Interest Receivable			
6/30	$10	7/31	$10	6/30	$10	7/1	$10

The question of determining the method to be used in closing accrued asset accounts should be considered. Where collections involve small amounts accruing over short periods and the accrued asset account has to be cleared

of numerous items, the use of the reversal method seems preferable. If, however, the accrued asset account contains only one or two items as, for example, in the case of accrued rent receivable, the use of the split method eliminates the necessity for making reversal entries. Since the method that is used depends upon the circumstances of each case, either method may be adopted and consistently followed in closing accrued asset accounts in the subsequent periods.

An alternative procedure under the split method would be to make an entry as of June 30 debiting Accrued Interest Receivable and crediting Interest Income $10; then the entire interest collection can be credited to Accrued Interest Receivable.

3. ALTERNATIVE METHODS OF TREATING ACCRUED LIABILITIES

Accrued liabilities generally result in accrued expenses. When an accrued liability appears on the balance sheet, it is evident that an accrued expense has been incurred. At the close of an accounting period there usually are accrued expense items that have not been reflected on the books because payment will not become due until some future time. Examples of accrued expenses include interest on notes payable and mortgages payable; local, state and Federal taxes; and salaries and commissions. The alternative methods of handling interest accrued on a mortgage payable will be given to illustrate how accrued expenses in general may be treated.

Facts: June 30 - Interest accrued on mortgage payable for month $30.
July 31 - Interest accrued on mortgage payable for month $30.
Aug. 31 - Interest on mortgage for three months paid $90.
(The books are closed monthly.)

	SPLIT METHOD	DR.	CR.	REVERSAL METHOD	DR.	CR.
June 30 Adjusting entry	Interest Expense Accrued Int. Payable On mortgage for month.	$30	$30	Interest Expense Accrued Int. Payable On mortgage for month.	$30	$30
Comment: Adjusting entry is the same under either method.						
July 1 Reopen books	No entry			Accrued Int. Payable Interest Expense To reverse adjustment of 6/30	$30	$30
July 31 Adjusting entry	Interest expense Accrued Int. Payable On mortgage for month	$30	$30	Interest Expense Accrued Int. Payable On mortgage to date	$60	$60
Comment:	This adjustment added to the amount set up June 30 shows total interest accrued to date on mortgage as $60 liability.			Inasmuch as the accrued liability was closed by reversal, it is necessary to set up the total interest accrued to date for two months, June and July.		

	SPLIT METHOD	DR.	CR.	REVERSAL METHOD	DR.	CR.
Aug. 1 Reopen books	No entry			Accrued Int. Payable Interest Expense To reverse adjustment of July 31.	$60	$60
Aug. 31	Interest Expense Accrued Int. Payable Cash Mortgage interest paid.	$30 60	$90	Interest Expense Cash Mortgage interest paid.	$90	$90

Comment : Compare the expense and accrued liability accounts under each method as presented below. Observe that the proper charge to expense applicable to each month is obtained and that the accrued interest account reflects the liability for unpaid interest at the closing dates.

SPLIT METHOD

Interest Expense

6/30	$30	6/30	P&L	$30
7/31	$30	7/31	P&L	$30
8/31	$30	8/31	P&L	$30

Accrued Interest Payable

		6/30	$30
8/31	$60	7/31	30

REVERSAL METHOD

Interest Expense

6/30	$30	6/30	P&L	$30
7/31	$60	7/1		$30
		7/31	P&L	30
8/31	$90	8/1		$60
		8/31	P&L	30

Accrued Interest Payable

7/1	$30	6/30	$30
8/1	$60	7/31	$60

The above example illustrates the procedure when the accrual affects more than one accounting period before payment is made. If the books are closed only once a year, this situation probably would not occur because accruals as a rule involve cash payment within one year or less. Either method may be adopted as long as the chosen procedure is consistently followed in succeeding periods.

4. COMPOUND JOURNAL ENTRY ADJUSTING ACCRUED ITEMS

Assume that at the end of the year or accounting period a concern finds that it has the following accrued expenses: Interest on notes payable $125, interest on mortgage bonds $500, property taxes $800, office salaries $260, salesmen's commissions $750. Separate adjusting entries may be recorded for each expense and accrued liability, but the bookkeeping work is simplified if only one compound journal entry is made, as follows:

Dec. 31, 1944	Interest Expense	$ 625	
	Property Taxes	800	
	Office Salaries	260	
	Salesmen's Commissions	750	
	Accrued Expenses Payable		$2,435
	To record accrued liability for expenses as follows: (List items).		

While this accrued liability account could remain open until the various amounts are paid in the next accounting period, the reversal method may seem desirable because several different items are involved. The bookkeeper then could ignore past accruals when recording payments in the new period:

Jan. 1, 1945	Accrued Expenses Payable	$2,435	
	Interest Expense		$ 625
	Property Taxes		800
	Office Salaries		260
	Salesmen's Commissions		750
	To reverse the adjusting entry for accruals of December 31, 1944.		

If accrued income items were numerous, one account might be debited for all Accrued Income Receivable and the appropriate income accounts credited. This compound adjusting entry then could be reversed at the opening of the next fiscal or accounting year.

5. ALTERNATIVE METHODS OF HANDLING DEFERRED CHARGES

Accounts classified as deferred charges to expense appear in the general ledger at the beginning of an accounting period when goods or services previously purchased have not been entirely consumed, or when it is determined that the benefits of an expenditure have not been fully realized. The types of deferred charges differ with the several classes of business enterprises. Supplies that have not been consumed and prepayments for services to be rendered in the future, such as interest on borrowed money, insurance premiums, taxes, rents, retaining fees, prepaid salaries, etc., are examples of deferred charges. As an illustration of alternative methods that may be applied in accounting for deferred charges, we will compare the two methods of handling prepaid insurance:

Facts: June 1 - Insurance policies were obtained by Jim Mann on building and furniture and fixtures for one year. Premiums paid amounted to $120.

June 30- Premiums unexpired at the close of the month total $110 (11/12 of $120 paid for year).

July 2 - Policy #M1105 at a premium of $60 was acquired on merchandise inventory.

ACCOUNTING TREATMENT OF ACCRUALS AND DEFERRED ITEMS

	NOMINAL ACCOUNT METHOD	DR.	CR.	REAL ACCOUNT METHOD	DR.	CR.
June 1	Insurance (expense)	$120		Prepaid Insurance	$120	
	Cash		$120	Cash		$120
	Premiums paid for year.			Premiums paid for year.		
Comment:	The prepayment is charged to an account regarded as primarily nominal upon the theory that every deferred charge is ultimately converted into an expense item.			The prepayment is charged to an account regarded primarily as an asset upon the theory that premium paid is a claim against the insurance company for the rendering of a service, which is protection against loss by fire.		
June 30 Adjusting entry	Prepaid Insurance	$110		Insurance (expense)	$10	
	Insurance (expense)		$110	Prepaid Insurance		$10
	Unexpired premiums			Expired Premiums		
Comment:	The real element is withdrawn leaving the Insurance Account purely nominal (expense).			The nominal element is removed and Prepaid Insurance Account becomes wholly real (asset).		
July 1 Reopen books	Insurance (expense)	$110		No entry		
	Prepaid Insurance		$110			
	Reopen expense account.					
July 2 Entry new policy	Insurance (expense)	$ 60		Prepaid Insurance	$ 60	
	Cash		$ 60	Cash		$ 60
	Premium mdse. policy			Premium mdse. policy		
Comment:	Prepayments consistenly are charged to the nominal account.			Prepayments consistently are charged to the real account.		

Insurance Expense			
6/1	$120	6/30	$110
		6/30 P&L	10
7/1	$110		
7/2	60		

Prepaid Insurance			
6/1	$120	6/30	$ 10
7/2	60		

Prepaid Insurance			
6/30	$110	7/1	$110

Insurance Expense			
6/30	$ 10	6/30	$ 10

It will be observed that the accounts under each method show that when an expense or nominal account is used in recording prepayments originally, a reversal entry is necessary to eliminate having two general ledger accounts containing like information. On the other hand, if a real account is established for recording prepayments, no reversal journal entry is required since the nominal account is reflected on the books by adjustment only and is then immediately transferred to the profit and loss account.

As stated previously, circumstances should determine whether a nominal account or a real account should be used in recording original transactions relative to prepayment. It makes little difference so long as the bookkeeper handles this class of items consistently, and proper adjustments are made. The length of the accounting period and the number of adjustments should be considered. If the prepayments will be almost entirely expense at the end

of the period, it seems desirable to use the nominal account method. Long-term prepayments indicate use of the real account method.

Alternative methods of handling supplies in the books of account were given in Text No. 8. Long-term deferred charges were also discussed. By way of distinction in terminology, we may state that the classification of Deferred Charges includes both short-term and long-term deferred items. However, Prepaid Expenses ordinarily includes only short-term prepayments with the exception of unexpired insurance premiums.

6. ALTERNATIVE METHODS OF TREATING DEFERRED CREDITS

Deferred credits, also known as "Deferred Revenues," are found on the opening trial balance whenever collections have been made or balances are brought forward in the current period for payments made in advance of the delivery of goods and services. Examples include advance payments received for discount on loans, rents, storage charges, insurance premiums, tuition, retaining fees, advertising, magazine subscriptions, advance payments on electric energy sales, etc. However, there is a tendency to classify amounts collected in advance of the delivery of goods as a current liability because a substantial reduction of current assets (inventory) is required in their earning; that is, only the profit to be realized will be a credit to income when earned. The essential peculiarity of this type of account lies in the fact that it is paid in goods or services rather than in money.

Alternative methods of recording deferred credits are available as in the case of deferred charges. These methods will be illustrated and compared by applying each to a given set of facts.

Facts: June 1 - Jim Mann collects $150 for three months' rent in advance on a storeroom in his building.
June 30 - The books are closed.

	NOMINAL ACCOUNT METHOD	DR.	CR.	REAL ACCOUNT METHOD	DR.	CR.

June 1 Advance Collection	Cash
	  Rent Income
	Rental to August 31
		$150	$150	Cash
				  Unearned Income
				Rental to August 31
					$150	$150

Comment:	The income element is recognized in the original entry. The prepayment is set up as income subject to adjustment for any unearned portion at the end of the accounting period.			The service to be rendered is regarded primarily as a liability. The income element is ignored until the service has been rendered.		

June 30 Adjusting entry	Rent Income
	  Unearned Income
	Two months' rental
		$100	$100	Unearned Income
				  Rent Income
				Rental for June
					$ 50	$ 50

	NOMINAL ACCOUNT METHOD	DR.	CR.	REAL ACCOUNT METHOD	DR.	CR.
July 1 Reopen books	Unearned Income	$100		No entry		
	Rent Income		$100			
	To reverse adjustment of June 30.					
Comment:	The real element was removed for balance sheet purposes leaving the income account wholly nominal. Reversal reopens the income account and any other rental collections would be credited to income.			The income element is taken up as earned and all collections in advance are recorded as a liability to render a service. Compare the accounts under each method ary rule given below.		

Rent Income			
6/30	$100	6/1	$150
6/30 P&L	50		
		7/1	$100

Unearned Income			
6/30	$50	6/1	$150

UNEARNED INCOME			
7/1	$100	6/30	$100

Rent Income			
6/30 P&L	$50	6/30	$ 50

The method to be adopted should be governed by the number of items involved and the length of the accounting period. If there are a large number of receipts to be almost entirely earned within the period, the nominal account method seems preferable even though reversal of the adjusting entry is required. If, however, the items are few and earnings are applicable to more than one period, use of the real account method is recommended since it obviates the necessity of reversing previous adjusting entries.

7. COMPOUND JOURNAL ENTRY FOR ADJUSTING PREPAID ITEMS

Assume that at the end of the year a business gives consideration to the following prepaid expenses: Unexpired insurance premiums $455, prepaid rent $800, store supplies inventory $150, office supplies inventory $75, prepaid interest on long-term debt $25. Further, the bookkeeper has chosen in all cases to record expense prepayments by charging a nominal account. The adjustments could be made by a separate journal entry for each prepaid expense item; but it is simpler tomake one compound entry for all prepaid expenses and then reverse the adjustment at the beginning of the next period:

Dec. 31, 1944	Prepaid Expenses	$1,505	
	Insurance		$ 455
	Rent		800
	Store Supplies		150
	Office Supplies		75
	Interest Expense		25
	To transfer real elements from the expense accounts and record as deferred items.		
Ja[illegible] 1945	Insurance	$ 455	
[illegible] ALT[illegible]	Rent	800	
[illegible]ferred [illegible] b	Store Supplies	150	
	Office Supplies	75	
	Interest Expense	25	
	Prepaid Expenses		$1,505
	To reverse accrual entry of December 31, 1944.		

Had the bookkeeper elected to use real accounts to record prepayments of expenses, a compound adjusting entry would not have been desirable because the nominal elements should be segregated.

8. ALTERNATIVE METHODS OF HANDLING MERCHANDISE INVENTORY

Illustrations in the preceding sections show that accruals and deferred items can be handled in more than one way. The same is true of the opening merchandise inventory. While many bookkeepers prefer to keep the opening inventory on the books until the end of the accounting period, this method is not always used. Some prefer to reverse the adjusting entry and thus reopen the Purchases account at the beginning of the new period. This is largely a matter of personal preference; but observe that the adjustment may be made either at the beginning or at the end of the period. The optional treatment of opening merchandise inventory should not be confused with the handling of supplies inventories which are deferred charges to expense.

By way of summary of preceding sections, the following is given: (1) Accrued assets and accrued liabilities may be closed by reversal of the adjusting entry at the beginning of the next period, or closed at date of payment under the split method; (2) adjustments setting up deferred charges and deferred credits are subject to reversal, but if the adjusting entry removes the nominal element from a real account no reversal is required; (3) reversal of the adjustment for merchandise inventory to reopen Purchases is optional. It may be added that adjustments recording an allowance for depreciation or for uncollectible accounts are never subject to reversal at the beginning of a new accounting period, because the nominal elements of depreciation or losses from uncollectible accounts are transferred to nominal accounts.

9. VALUATION OF INVENTORY OF STOCK-IN-TRADE

The problem of correctly valuing the inventory of merchandise at the close of an accounting period is an important one. If inventory value is overstated,

profits for the period likewise will be overstated, or if closing inventory is understated this understates the current profit. Obviously, those who wish to manipulate the profit and loss result may overstate or understate closing inventory by miscounting the physical units or by applying fictitious cost prices to a correct count. Practices of this kind, although of interest to the auditor seeking to uncover fraud, have no bearing upon the theoretical problems of inventory valuation. The question for consideration is: How should the inventory be valued when the objective is to arrive at the true condition of affairs?

The common rule which is generally followed is to value merchandise inventory on the basis of (a) cost, or (b) cost of market, whichever is lower. The rule is easy to state but sometimes difficult to apply in a practical situation.

The word "cost" as used in connection with merchandise inventory may be taken to mean (1) prices paid for specific articles of merchandise on hand, (2) an average of several different prices, (3) prices paid for articles most recently purchased, or (4) prices paid for goods first purchased -- just the opposite of (3). Illustration of the several methods of computing cost will be given in connection with the figures shown in the stock record following. Records of this kind, known as perpetual inventory cards, are often established where circumstances permit in order to secure internal control over each kind of goods carried in stock:

Article X — STOCK CARD — Location Dept. E

Date	Rec'd From	Units	Cost	Date	Sold To	Units	On Hand
Jan. 1	Inventory	2,200	$2,530				2,200
				Feb. 20	Customer A	1,000	1200
Mar. 10	XYZ Company	3,000	3,750				4,200
				May 10	Customer B	1,500	2,700
				June 5	Customer C	2,000	700
June 9	XYZ Company	2,500	3,250				3,200
		7,700	$9,530			4,500	3,200
July 1	Inventory	3,200	?				

The problem now is: Find the cost of the 3,200 units of Article X remaining on hand when the books are closed June 30. Observe that the inventory at January 1 was valued at $1.15 cost per unit, the goods purchased March 10 cost $1.25 per unit, and those bought June 9 cost $1.30 per unit. It is assumed that the goods actually on hand have been counted and that the 3,200 units shown by the stock card is a correct inventory.

Actual Cost

The determination of actual cost of units on hand is possible only when inventory can be identified with specific purchases. If so, the calculation of cost value of inventory presents no difficult problem.

Average Cost

In computing average cost under the "weighted" method, total cost of all units purchased and on hand is divided by the total number of units available. In the illustration, this would be $9,530 divided by 7,700 giving a cost of $1.23766 per unit. Closing inventory of 3,200 units would then be valued at 3,200 times 1.23766 = $3,960.52 cost. It follows that the cost of the 4,500 units sold would be $5,569.48.

When it is desired to know the value of units on hand at all times, a "moving" average cost is found by computing a new average cost with each purchase of goods. The total cost of units on hand plus those purchased is divided by total units to find the new average cost. This method also results in an average cost figure for each sale at the time it is made. The following tabulation illustrates the procedure:

Received	Units	Value	Sold	Units	Value	On Hand	Value	Cost
Jan. 1	2,200	$2,530.00				2,200	$2,530.00	$1.15
			Feb.20	1,000	$1,150.00	1,200	1,380.00	1.15
Mar. 10	3,000	3,750.00				4,200	5,130.00	1.22143
			May 10	1,500	1,832.14	2,700	3,297.86	1.22143
			June 5	2,000	2,442.86	700	855.00	1.22143
June 9	2,500	3,250.00				3,200	4,105.00	1.28281
	7,700	9,530.00		4,500	$5,425.00	3,200	$4,105.00	
July 1	3,200	$4,105.00				3,200	$4,105.00	$1.28281

The mathematics involved may be an objection to average costs as it is necessary generally to carry the cost value to five decimal points to avoid any discrepancies. However, averages tend to "iron out" fluctuations in cost. The average cost method of pricing electric materials and supplies is preferred by REA since experience has shown that this method simplifies the bookkeeper's work in computing unit costs and maintaining expedient controls over the records.

First-in First-out Method

This method is based upon the assumption that the oldest stock is sold first and, therefore, the inventory of goods on hand is from the latest purchases. Goods may be priced when sold on the basis of oldest cost; and since inventory is valued on the basis of latest cost, it usually is close to the current market valuation unless turnover is slow.

2,500 units from purchase of June 9	- at $1.30 per unit	$3,250.00
700 units from purchase of March 10	- at $1.25 per unit	875.00
3,200 units in inventory June 30 valued at		$4,125.00

It follows that the cost of 4,500 units sold is taken to be 2,200 units at $1.15, $2,530.00, plus 2,300 units from the purchase of March 10 at $1.25 per unit, $2,875.00, total $5,405.00.

Last-in First-out Method

This method of computing inventory cost (and cost of goods sold) was first recognized for income tax purposes under the Revenue Act of 1938. The theories supporting this method, and the conditions under which it seems to be applicable, are: Inventory is a more or less permanent working asset investment, therefore its cost should not fluctuate to any extent. Further, when it is necessary to carry a large stock on hand that moves slowly, and selling prices rise or fall with current cost, cost of goods sold should be on a latest cost basis to avoid "inventory profits" or losses. This method is most often applied to raw material inventories of manufacturing concerns.

On this basis, the cost of 4,500 units X sold would be 2,500 x 1.30 or $3,250, plus 2,000 x 1.25 or $2,500, total $5,750. And the 3,200 units in inventory would be valued at 2,200 x 1.15 or $2,530, plus 1,000 units at 1.25 or $1,250, closing inventory cost value $3,780.

The student may well ask at this point: If "cost" can be taken to mean any one of several values, which cost value should be used? No definite answer can be given other than that one method of computing inventory cost may be adopted, as seems best suited to the operating conditions of the particular business, and applied consistently from period to period. In mercantile concerns, the first-in first-out method seems to be most common.

Even if we have a correct count of merchandise on hand and have established a cost value for each item, there are still some questions to be answered. It has been previously stated that freight, express, trucking charges, insurance, duties, etc., on merchandise purchased are part of the cost of the goods. It follows that part of these incidental costs are applicable to closing inventory as well as cost of goods sold. Freight, cartage inward, and other such costs may be handled in more than one way:

Freight, Cartage Inward, etc., in Inventory Cost

When the purchaser pays freight, cartage, or other costs in addition to the seller's invoice price for merchandise, the best procedure is to identify these costs with the shipments to which they apply. For example, if a purchaser pays $25 freight and $5 cartage in addition to the seller's invoice of $500 for 100 articles, the cost per unit would be taken as $5.30 which includes applicable freight and cartage. The fact that $500 is debited to Purchases for the goods and $30 to Freight and Cartage Inward does not affect this because the latter account is closed to Purchases at the end of the period as part of the total cost of merchandise.

On some shipments, freight and other charges are prepaid by the seller and included in the invoice, or the quoted price of goods is on the basis

f.o.b. distination. Whether incidental costs are paid by the purchaser separately or to the seller as part of the invoice price, the units on hand are inventories at a cost including applicable freight, cartage, etc. This properly allocates incidental costs to closing inventory and the cost of goods sold.

Freight, Cartage Inward, etc. Allocated

Sometimes freight, cartage inward, and other incidental costs are paid on shipments containing a variety of articles, or the receipts of merchandise are so numerous that it is not practicable to identify incidental costs with the goods to which they apply. Under these circumstances, freight and cartage applying to closing inventory may be approximated as follows: Assume that Purchases for the period have been $100,000, closing inventory at invoice price is $25,000, and that freight, cartage and other like costs total $1,800. Under these circumstances, it may be taken that 25/100 of $1,800, or $450, freight and cartage applied to closing inventory and the remainder $1,350, applied to cost of goods sold. The simplest procedure would be to close the total freight and cartage into Purchases, then record the closing inventory as $25,450, and credit Purchases for this amount. Cost of goods sold thus would include the applicable $1,350 incidental charges.

It must be admitted that certain classes of merchandise take rates that are high in proportion to weight and low in proportion to value while with respect to other merchandise just the reverse is true. Therefore the above is only an approximation but probably is nearly enough accurate for practical purposes.

Damaged and Obsolete Goods

When goods can be sold for only a fraction of the original price due to the fact that they are shopworn, damaged, or out of style, obviously a reduction in the cost valuation should be made to reflect this fact. It is a well recognized inventory principle that merchandise should not be priced any higher than it can be sold for on the market. Therefore obsolete or damaged goods should be valued at least as low as the probable bona fide selling price less any direct cost to sell them.

The loss due to depreciation of goods on hand may be accounted for as a separate charge to Profit and Loss; but more often obsolete or damaged goods simply are included in inventory at the lower valuation without reference to original cost--which means that loss on those items will be included in cost of goods sold. It may be argued that some loss due to damage and change in style is to be expected and therefore is correctly included in cost of sales. Theoretically, however, the separate charge reducing inventory to the lower valuation seems preferable in order that gross profit realized on goods actually sold will be shown. (Net profit will be the same under either procedure.)

Lower of Cost or Market Basis

The discussion thus far has dealt with the valuing of closing merchandise

inventory on the basis of cost. It was stated that for accounting purposes closing inventory could be valued on the basis of cost or market, whichever is lower. If the lower of cost or market basis is used, it means that two prices--cost and market--must be ascertained for each article or class of articles on hand. Whichever is the lower basis is then applied for purposes of inventory valuation.

The real problem so far as application of the lower of cost or market rule is concerned is to arrive at an accurate determination of the cost and market values. We have already seen how cost values may be calculated.

In determining market values for goods in inventory, current cost quotations may be found in price lists, trade journals, newspapers and other sources. The best evidence may be an invoice for a purchase very near the closing date providing this is for identical articles in the usual volume in which purchased. Obviously, good judgment must be used in the determination of market cost at the date of inventory. Once the market value has been established, it is compared with actual cost and the lower of the two selected for purposes of inventory valuation. The principle is illustrated as follows:

Quantity	Description	Cost Price	Market	Lower of C/M	Inventory
4,000	Articles A	$1.50	$1.25	$1.25	$ 5,000
1,250	Articles B	1.00	1.00	1.00	1,250
2,000	Articles C	4.75	4.00	4.00	8,000
5,000	Articles D	2.00	2.25	2.00	10,000
		Value at Lower of Cost or Market			$24,250

What justification is there for using the lower of cost or market in valuing merchandise inventory? There is a general rule of conservatism in accounting to provide for all losses but not to anticipate profits. It is evident that the lower of cost or market rule produces a lower valuation on merchandise inventory than actual cost in many cases and therefore is more conservative. Further, it may be assumed that if the cost of an item of merchandise decreases, the selling price in a competitive market must be reduced. Should we wait until the goods on hand are sold and then take up the loss or should this be anticipated and the cost of units in inventory stated at current market? While authorities differ, the present weight of opinion is that any substantial decrease in the cost of merchandise should be reflected in inventory values.

Theoretically it is desirable to compute inventory on the basis of cost as well as the lower of cost or market and to write the inventory down to the lower value by a separate charge to Profit and Loss. In the illustration given above, the inventory valued at cost would be $26,750 as compared with the lower of cost or market valuation of $24,250 due to the $2,500 write-down on Articles A and C. As a practical matter, when the lower of cost or market basis is used, closing inventory generally is recorded at this valuation--which means that cost of goods sold includes any reduction in value of items that may be purchased at a lower cost on the inventory date.

If closing Inventory is debited and Purchases credited at cost, the decrease in value to the lower of cost or market can be charged to a non-operating account (P&L) and credited to closing Inventory.

10. CASH AND ACCRUAL BASES

It is important that a distinction between the cash and accrual bases of computing net income be clearly understood.

Under the cash basis, net income is measured by the excess of cash receipts of income over cash disbursements for expenses. Notice that not all cash items represent income or expense; for example, contributions or withdrawals of capital, purchases or sales of fixed assets, and so forth. Depreciation allowances are taken under the cash basis although expenses generally are recognized only when cash is paid out. However, bad debts are eliminated because income is credited only when cash is collected. The cash basis is tolerated because in some instances it yields results similar to the accrual basis and is expedient for certain enterprises, such as service organizations. However, in a trading business the cash basis would seldom, if ever, produce results comparable to the accrual basis.

The accrual basis signifies a method of computing net income that is based on changes of value--income is recorded when earned, expenses are reflected when incurred, whether or not cash is immediately paid, prepaid, or to be paid at some future time. Inasmuch as the accrual basis is regarded as a criterion, we should keep in mind that it involves allocation of income and expense to the proper period or periods and a complete statement of assets, liabilities and net worth. This leads to the consideration of adjustments at the end of each accounting period for any unrecorded transactions such as inventories, deferred charges and deferred credits, accrued income and accrued expenses, depreciation allowances, and losses on uncollectible accounts. Since the common methods of handling these items have been discussed in some detail in preceding texts, the reader should have a fairly clear conception of what is meant by the accrual basis of accounting.

Although a full accrual basis represents the accounting ideal, it must be admitted that small adjustments are sometimes passed over because to do so will have no material effect upon the statements, or because it is not practical to make the adjustments. In the usual case, however, the accountant should make all adjustments that are essential to a correct apportionment of income and expenses and to complete disclosure of all assets and liabilities.

The cash or accrual basis of accounting should not be confused with double entry or single entry. The latter terms refer to methods of keeping books and not the computation of net income.

It may be emphasized at this point that REA-financed electric systems maintain their records on the accrual basis.